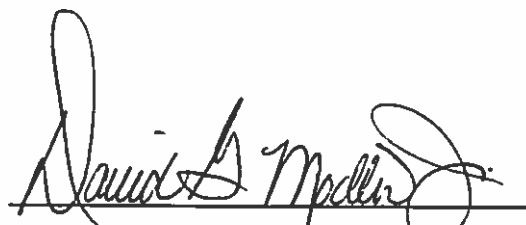
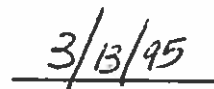


FEASIBILITY STUDY

IMPROVED CONNECTOR  
from I-95 to US 301  
Halifax County  
R-3312

Prepared by  
Program Development Branch  
Division of Highways  
N. C. Department of Transportation

  
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Head of Feasibility Studies

  
Date



IMPROVED CONNECTOR  
from I-95 to US 301  
Halifax County  
R-3312

I. GENERAL DESCRIPTION

This preliminary study describes proposed adjustments to the vertical alignment of US 158 EB in Weldon at the CSX Railroad underpass to improve the existing vertical clearance of 13 feet 6 inches (4.1 m) to 14 feet 6 inches (4.4 m) (See Figures 1, 2, and 3). This action will provide an acceptable route for truck movements between I-95 and US 301 for traffic destined to eastern North Carolina and Virginia. This proposal has been coordinated with the CSX Railroad with a response that "the proposal seems conceptually feasible".

The total estimated cost for the project is \$ 300,000.

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the problem, recommend a treatment including costs, and identify potential problem areas that require special consideration in the planning and design phases.

II. NEED FOR PROJECT

The purpose of this project is to provide an improved connector between I-95 and US 301 for truck traffic with origins/destinations in eastern North Carolina or Virginia.

The CSX reference to Bridge No. 43 which carries the railroad over US 158 is Milepost A-82.75. At this location US 158 passes under the bridge and is a 2-lane, one-way, 40-foot (12.2-m) curb and gutter section. There are sidewalks existing within the project area.

The 1994 Average Daily Traffic (ADT) on US 158 EB (Third Street) within the study area is estimated at 1,700 vehicles per day (vpd) and in the design year 2020, 3,600 vpd. The ADT is expected to include 12 percent trucks if the vertical clearance is improved. With the existing cross-section, capacity and Level of Service are not an issue at these traffic levels.

During the period from April 1, 1991, through March 31, 1994, there were no accidents reported within 100 feet (30.5 m) of the underpass. Accidents are not an issue in this study.

### III. RECOMMENDED ALTERNATE

This preliminary study describes proposed adjustments to the vertical alignment of US 158 EB in Weldon at the CSX Railroad underpass to improve the existing vertical clearance of 13 feet 6 inches (4.1 m) to 14 feet 6 inches (4.4 m) (See Figures 1, 2, and 3). This action will better improved routing for truck movements between I-95 and US 301 for traffic destined to eastern North Carolina and Virginia. This proposal has been coordinated with the CSX Railroad with a response that "the proposal seems conceptually feasible".

The specific recommendation is to remove approximately 2 feet (0.6 m) of the existing pavement paying particular attention to the footing supporting the railroad structure, Bridge No. 43. Approximately 1 foot (0.3 m) of pavement would be replaced with the addition of a concrete barrier to further protect the column supporting the railroad structure (See Figure 3). Small retaining walls, 3 to 4 feet (0.9 to 1.2 m), would be built behind the face of curbs to contain existing utilities and sidewalks. Handrails will be positioned in the retaining walls for safety considerations. The limits of the proposed project are from approximately 175 feet (54 m) west of the centerline of Bridge No. 43 to 75 feet (23 m) east of the same centerline.

There will be no relocatees due to this project. The total estimated cost is as follows:

Construction .....	\$ 300,000
Right of Way .....	0
Total Cost .....	<u>\$ 300,000</u>

### IV. OTHER COMMENTS

Two other alternates were studied to provide the same improved truck corridor between I-95 and US 301.

NC 903 was evaluated and dismissed due to: (1) the cost of rebuilding approximately 3.4 miles (5.5 km) of "light duty" road to support the increased weight of truck traffic; (2) the potential impact to the former Halifax County Home and Tubercular Hospital (National Register site No. 1127) and the William Davie House (National Register site No. 285); and (3) the conflict with 16 trains per day at 70 miles per hour (113 kmph) at the existing at-grade crossing.

NC 561 was also evaluated and dismissed due to the substandard vertical clearance of 13 feet 11 inches (4.25 m) between NC 561 and Bridge No. 92 and the total horizontal clearance of 29 feet (8.8 m) under the structure. These conditions made consideration of rebuilding the crossing mandatory and the cost is certainly not competitive with the recommended improvement. The proximity of the existing grade separation to US 301 was also a limiting factor.

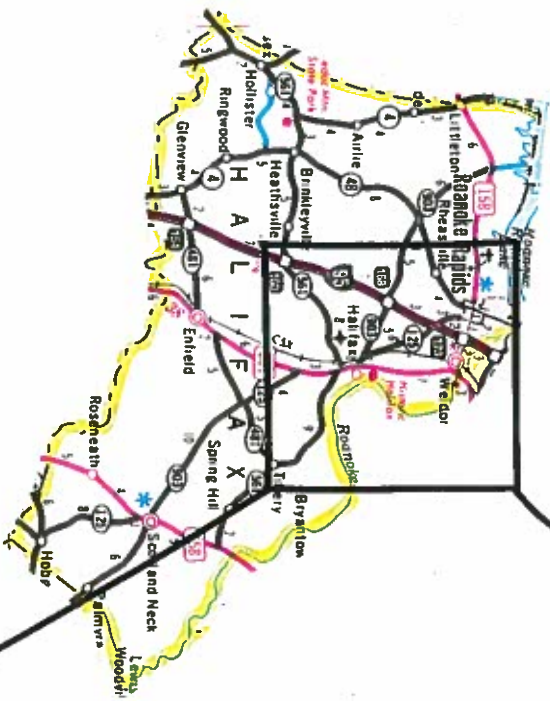
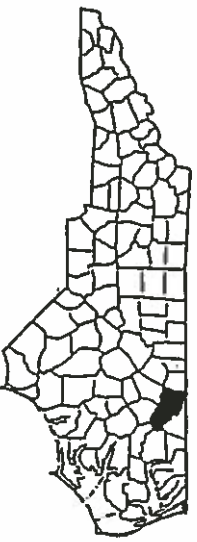
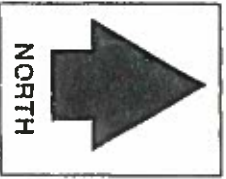
An environmental screening was not conducted for this study; however, no impacts to historic properties or wetlands are anticipated. The Grace Episcopal Church (National Register site No. 1638) is located at 404 Washington Avenue, some distance from the project area. Based on maps at the Department of Environment, Health, and Natural Resources - Natural Heritage Section, no threatened and/or endangered species were identified in the project corridor.



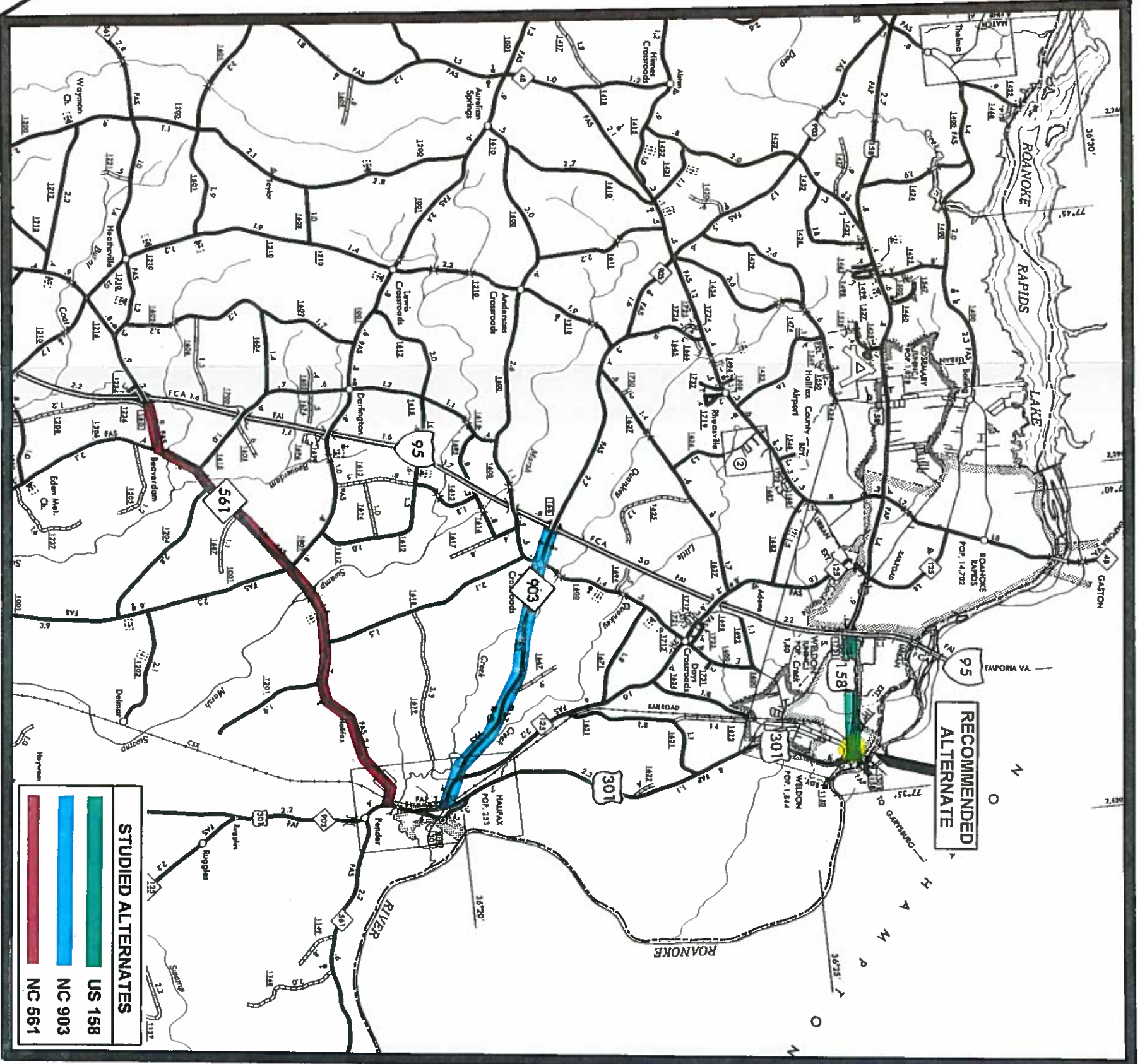








FEASIBILITY STUDIES UNIT
IMPROVED CONNECTOR FROM I-95 TO US 301
HALIFAX COUNTY
R-3312 DIV 4 FIGURE 1



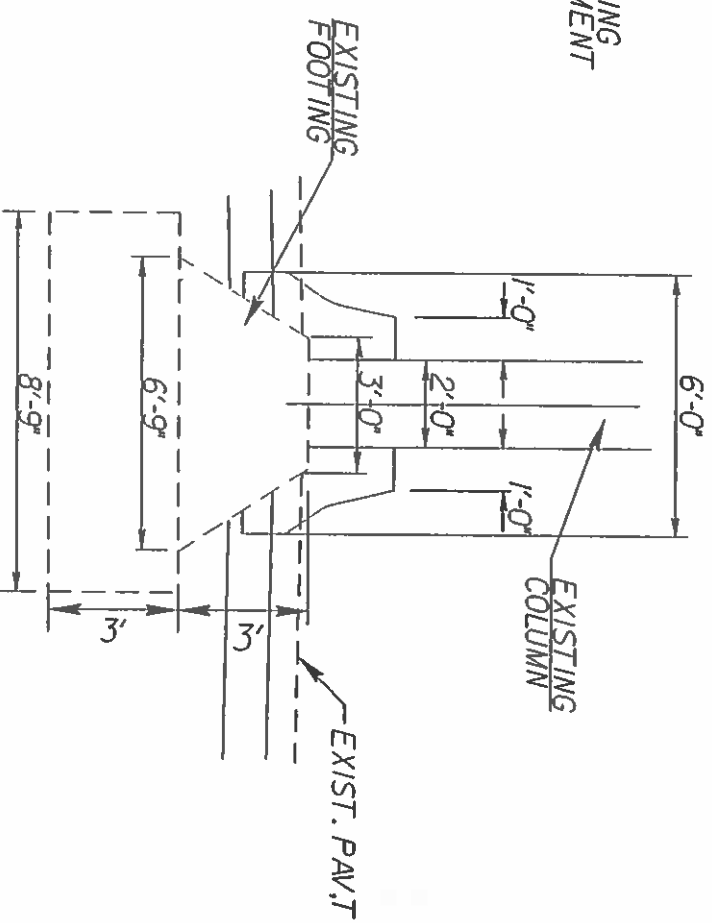


FEASIBILITY STUDIES UNIT

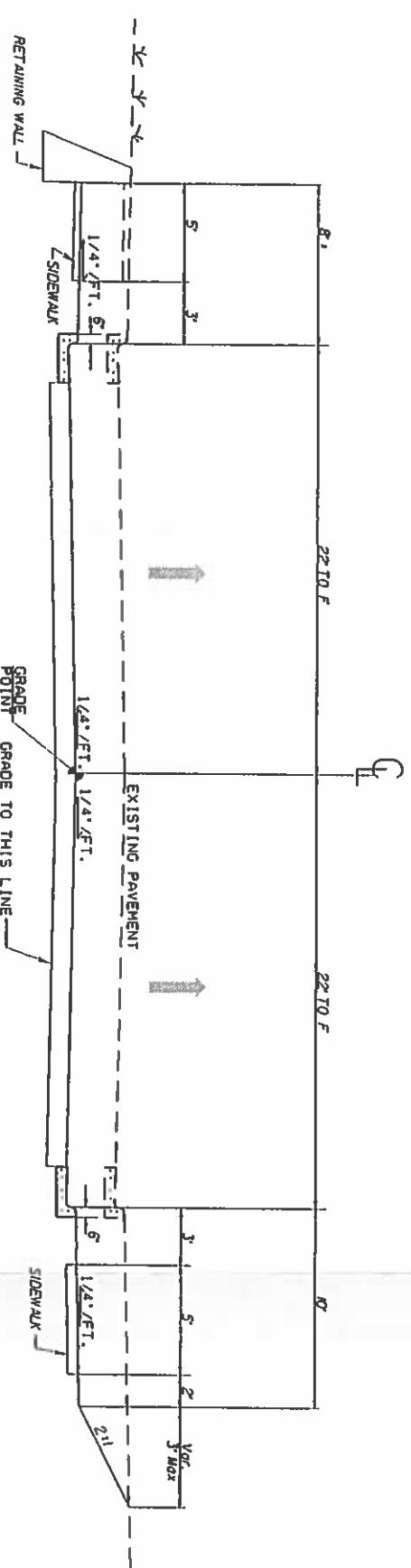
IMPROVED CONNECTOR  
FROM I-95 TO US 301

HALIFAX COUNTY

R-3312 DIV 4 FIGURE 3



USE TYPICAL SECTION NO. 1  
UNDER RAILROAD BRIDGE  
(ONE WAY TRAFFIC)



USE TYPICAL SECTION NO. 2  
APPROACHING RAILROAD BRIDGE  
(ONE WAY TRAFFIC)

